

2001

# The Three Hundred and Ninety-Fourth Report of the Curricular Affairs Committee: Proposal for a B.A. in Computer Science

University of Rhode Island Faculty Senate

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## Faculty Senate

Serial Number #00-01--22

TO: President Robert L. Carothers

FROM: C. B. Peters, Chairperson of the Faculty Senate

1. The attached BILL, titled The Three Hundred and Ninety-Fourth Report of the Curricular Affairs Committee: Proposal for a B.A. in Computer Science, is forwarded for your consideration.
2. The original and two copies for your use are included.
3. This BILL was adopted by vote of the Faculty Senate on March 22, 2001.
4. After considering this bill, will you please indicate your approval or disapproval. Return the original or forward it to the Board of Governors, completing the appropriate endorsement below.
5. In accordance with Section 10, paragraph 4 of the Senate's By-Laws, this bill will become effective April 12, 2001 three weeks after Senate approval, unless: (1) specific dates for implementation are written into the bill; (2) you return it disapproved; (3) you forward it to the Board of Governors for their approval; or (4) the University Faculty petitions for a referendum. If the bill is forwarded to the Board of Governors, it will not become effective until approved by the Board.

March 23, 2001  
(date)

C. B. Peters  
Chairperson of the Faculty Senate

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### ENDORSEMENT

TO: Chairperson of the Faculty Senate

FROM: President of the University

Returned.

a. Approved   .

b. Approved subject to final approval by Board of Governors   .

c. Disapproved   .

3/28/01  
(date)

8-16-01  
  
President

UNIVERSITY OF RHODE ISLAND  
Kingston, Rhode Island

FACULTY SENATE

March 7, 2001

Faculty Senate Curricular Affairs Committee  
Three Hundred and Ninety-Fourth Report

Proposal for a Bachelor of Arts Degree  
Major in Computer Science

**SECTION I**

**BACKGROUND INFORMATION**

**ABSTRACT**

The Curricular Affairs Committee approved the proposal for a B. A. degree major in Computer Science and voted to recommend approval at the Class B level (recommends that proposed new programs compete for resources on an equal basis with all other University activities). The proposed major will be offered and administered by the Department of Computer Science and Statistics. All of the courses in the proposed major are existing courses that are offered by the department, the College of Arts and Sciences and the University.

**BACKGROUND**

The Department of Computer Science and Statistics seeks to address the increasing enrollment and the changing profile of students at the university by adding a B. A. curriculum in computer science. The curriculum is expected to retain students who now leave computer science for other disciplines and to attract students who might not otherwise attend URI.

The proposal for a Bachelor of Arts major in Computer Science was reviewed under the process established by the Faculty Senate in 1996-97. Under the review procedures, the Curricular Affairs Committee served as a coordinating and review committee and asked the Joint Educational Policy Committee and the Council of Deans to review the proposal and make recommendations. The Graduate Council and Council for Research were invited to comment but did not do so. The CAC also asked the Budget Office to review the financial implications of the proposal as part of the new procedure.

The Council of Deans met on January 10. In reporting on that meeting to Curricular Affairs Committee, Vice Provost Lord wrote that "the prevailing view [of the Council of Deans] was that the program would be an excellent addition to the University's undergraduate degree program menu and would provide excellent opportunities for additional students to build marketable skills in this area."

The Joint Educational Policy Committee reviewed the proposal on February 15. They made a number of suggestions about the proposal, most of which have been addressed in the proposal that follows.

The JEPC also expressed concern about the request for an additional faculty member. In her memorandum to the CAC, Provost Swan noted that "Faculty positions...are our most expensive resource." She went on to say that "adding to the table of organization is difficult and reallocating existing positions even more so because of the number of requests already put forward by the

deans and academic departments. While such reallocation is not impossible, those reviewing the proposal need to be aware of the resource issue." Another stated concern was that the fringe benefits were "dramatically underestimated."

In the Budget Office review, Budget Director Linda Barrett stated that "additional funding is not required to run this program with the exception of a possible need for an additional faculty member in the future as the number of students completing this degree program is expected to increase over time." She said that if the number of students increases, "the proposal indicates that the program should provide a net increase in revenues from which to cover this additional cost."

The department chairperson assured the CAC that the proposal does not require an additional faculty member at this time. He explained that a search is currently underway for a tenure-track position in computer science with the expectation that the new person will be here for fall 2001.

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## SECTION II

### RECOMMENDATION

The Curricular Affairs Committee approved the following proposal for a new Bachelor of Arts Degree major in Computer Sciences at its meeting of February 26, 2001. It is now presented to the Faculty Senate for approval at the Class B Level - - to compete for resources on an equal basis with all other University activities. The proposal is in the format required by the Board of Governors for Higher Education.

### PROPOSAL FOR B. A. CURRICULUM IN COMPUTER SCIENCE

#### A. PROGRAM INFORMATION

1. **Name of Institution:** The University of Rhode Island
2. **College:** College of Arts & Sciences
3. **Department:** Computer Science and Statistics
4. **Title of Proposed Program:** Bachelor of Arts in Computer Science
5. **Intended date of initiation:** September 2001
6. **Anticipated date of first degree:** May 2002
7. **Intended Location:** University of Rhode Island, Kingston
8. **Institutional review and approval process:**

	<b>Date</b>
Department of Computer Science and Statistics	<u>3/20/00</u>
Faculty of the College of Arts and Sciences	<u>11/30/00</u>
Faculty Senate Curricular Affairs Committee	<u>2/26/01</u>
Faculty Senate	<u>3/22/01</u>

President of the University \_\_\_\_\_

- 9. Summary:** The Department of Computer Science and Statistics seeks to provide additional opportunities for students at the University and to address the increasing need for computer science educators (for example, in secondary education) and for university graduates with significant background in computer science by adding a B. A. curriculum in computer science. This curriculum will help retain students who now leave computer science for other disciplines and attract students who might not otherwise consider specializing in computer science or attend URI. We expect that the new program will result in a 25% increase in the number of computer science students who successfully complete their degrees. In addition, we hope to retain the students who leave the University without a degree for high-paying jobs. This will create a larger pool of well educated graduates with a background in computer technology for the state of Rhode Island, thereby addressing an urgent need for Rhode Island's economic development in this very important area.

This proposal addresses several concerns of many parties. These parties include:

- Other departments on campus: The proposed curriculum makes it easier for students in other curricula to also major in computer science, thus addressing a growing interest and need by such students. For example, students working for a B.S. degree in secondary education could also obtain a B.A. degree in computer science and hence be better prepared to serve as computer science educators.
- Economic Development Council: The economic development council has identified the technology area as one with great potential for growth in the state and has urged educators in the state to help educate and train personnel in technological areas.
- The Students: In a survey of undergraduate computer science majors, we documented the interest in a B.A. in computer science.
- The National Science Foundation: The new criteria for the evaluation and funding of research proposals require that intellectual merit be coupled with outreach—both educational and industrial—and multidisciplinary activities. We expect this new B. A. program could help foster this.

**10. Signature of the President** \_\_\_\_\_

- 11. Additional resources.** Initially, the proposed program will require no new resources. Eventually, we expect the need for an additional faculty member.

**12. Person to be contacted during the review:**

James Kowalski, Chair,  
Department of Computer Science and Statistics  
401-874-2701  
kowalski@cs.uri.edu

## **B. RATIONALE**

The objective of the proposed new program is for URI to educate computer professionals that meet the technological standards of the new millennium. The program will meet established needs in the state of Rhode Island that parallels those in all parts of the country.

Evidence of these needs is provided in part by companies in Rhode Island who have asked for students with a broader academic background. Computer applications employ techniques from a wide array of interrelated disciplines to solve problems in virtually every area. Students with broad-based problem-solving skills are coveted in the marketplace.

In addition, the Rhode Island Economic Development Corporation recently documented the existence of well over 2,000 technological positions in Rhode Island. At the time of the survey, URI was only producing 65 graduates capable of filling these positions. The Department of Computer Science and Statistics wants to address this shortfall of well-trained technologists in RI.

There will always be a core of students who love computer science as traditionally defined in a B. S. degree program that utilizes mathematical, theoretical, and engineering techniques to solve problems. An additional group of students have entered the university and are less interested in the theoretical and scientific aspects of computing. Fortunately this student interest matches the industrial need for various kinds of computer professionals: A group of problem solvers who deal with the scientific and theoretical aspect of computing systems that our present B. S. curriculum provides, and another multidisciplinary group who develops the novel computing systems of the future. It is this second group that we wish to educate through the proposed B. A. degree program.

Many students are interested in combining fields such as art, music, or education with computer science. In fact, other academic departments at URI have asked us to develop such programs of study for their students. These students would be better served by a B. A. curriculum in computer science that would allow them to also major in another related discipline and still complete their degree within four years, because it requires fewer math, science, and computing courses than the B. S. degree. Although we have always encouraged second majors within the current B. S. curriculum, when the secondary field is within a B. A. curriculum, 30 additional credits are required. Thus, to complete this "double degree" program, a typical student requires an additional year of study.

A B. A. program in computer science will also help the department to recruit and retain students. The current economy and short fall of computer professionals makes many university seniors employable without a degree. Many times the courses that such students do not complete are physics, mathematics, and the more theoretical courses in computer science. While leaving the university without a degree is financially attractive now, it will not be when the job market tightens, as these students will be left out of the best career tracks. Clearly, others who have completed a bachelor's degree will be promoted ahead of them.

Recent surveys of our present students in computer science indicate a keen interest in the proposed B. A. degree in computer science. The results indicate that a B. A. program will attract students to computer science and will help retain those who presently leave the current B. S. program. As a result, we expect some enrollment shift from the B. S. program to the B. A. program. Overall, however, we expect an increase in enrollment, because we will better serve our students by providing them attractive and useful choices.

## **C. INSTITUTIONAL ROLE**

President Carothers has consistently expressed a desire for URI departments to work together in areas of strength to meet the needs of the students and of the state. One of the specific areas of interest is enterprise and technology. This B. A. degree program will make it possible for computer science students to apply computing expertise to virtually any other area of study. This would make them invaluable players in existing collaborations in education and research. Our present undergraduate students in computer science are already involved in projects with other departments and have developed applications for many offices on campus. The extent of this kind of interaction will grow and be more diverse when B. A. students are involved.



#### D. INTER INSTITUTIONAL CONSIDERATIONS

1. **Computer Science Programs in the State and Region:** The following nearby four-year institutions offer degree programs in computer science. Programs in computer engineering and computer/management information systems have been excluded from consideration, since such programs are different in nature and scope from computer science, emphasizing hardware development or the use of already developed software systems. Computer science emphasizes the design, development, testing, and production of software and software systems and the principles of efficient algorithms embedded in these systems.

Rhode Island College B. A. in computer science

Brown University B. A. and B. S. in computer science

Bryant College No degree programs in computer science

Providence College B. S. in computer science

Roger Williams Univ. B. S. in computer science

Univ. of Connecticut B. S. in computer science

Univ. of Massachusetts/Amherst B. S. in computer science

Univ. of Massachusetts/Dartmouth B. S. in computer science

Among these schools, both Brown University and Rhode Island College offer a B. A. in computer science.

Brown University draws its clientele from a different student population, both geographically and demographically, than URI. It is unlikely that a B.A. program at RI would be in competition or would be starved for applicants because of the program at Brown.

As for the program at RIC, in keeping with the University's mission as a public research institution, the Computer Science Department at URI seeks to emphasize the connection of topics in computer science with research problems and with industrial outreach. Course work and programming assignments frequently directly reflect this. As well, some students participate in the research projects at the University or in industrial internships and these opportunities would be available to B.A. program students. This is perhaps one way a B.A. program at URI would be differentiated from the already existing one at RIC. However, given the pressing, well-recognized, and oft-commented-upon need for graduates with significant background in computer science, there is room for and need of flexible and attractive programs at both institutions. Computer science is one area where, because of need, interest, and demand, the State Higher Education System could profitably expand its efforts. This proposal is motivated in part by that.

2. **Projected Impact:** Due to the above considerations and the fact that a B. S. program in computer science has been in existence at URI for many years, the proposed program likely will have no impact at all on nearby institutions of higher education.
3. **Transfer Students:** The articulation agreement already in place with Rhode Island College and the Community College of Rhode Island will facilitate the transfer of credits and specific computer science courses between these institutions.

No formal transfer agreements exist with any other institutions, although the department has had a good number of transfer students into its B. S. program over the years. Each student is placed into appropriate URI courses and given major course credit based on their prior academic work.

4. **Cooperative Arrangements:** No special cooperative arrangements exist with other institutions for sharing of faculty, library resources, equipment, and facilities in the area of computer science.
5. **External Affiliations:** No external affiliations with outside agencies are required to institute or support the proposed degree program.
6. **NEBHE Regional Student Program:** As with the current B. S. in computer science, the proposed B. A. degree will *not* be available to students under the New England Board of Higher Education (NEBHE) Regional Student Program (RSP).

## E. THE PROPOSED PROGRAM

### 1. Curriculum Display

**Catalog copy.** Students in the computer science B. A. curriculum must complete a minimum of 36 credits as follows: CSC110 (4), 211 (4), 212 (4), 301 (4), 305 (4), 320 (4); one of 411 (4) or 412 (4); two of 402 (4), 411 (4), 412 (4), 436 (4), or 481 (4). Also required are MTH141 (4) and 215 (3); one COM course (3); and two WRT courses from among WRT 101, 201, 301, or 333 (6). A total of 121 credits is required for graduation; at least 42 of these credits must be at the 300 level or above.

#### **Required CSC courses:**

CSC 110 Survey of Computer Science  
CSC 211 Introductory Programming and Design  
CSC 212 Data Structures and Abstractions  
CSC 301 Fundamentals of Programming Languages  
CSC 305 Software Engineering  
CSC 320 Social Issues in Computing  
CSC 411 Computer Organization or  
CSC 412 Operating Systems and Networks  
*Two courses from*  
CSC 402 Compiler Design.  
CSC 411 Computer Organization  
CSC 412 Operating Systems and Networks.  
CSC 436 Database Management Systems.  
CSC 481 Artificial Intelligence.

#### **Other required courses**

MTH 141 Introductory Calculus with Analytic Geometry  
MTH 215 Introduction to Linear algebra  
*Two courses from*  
WRT 101 Composition  
WRT 201 Intermediate Writing: Academic Contexts  
WRT 301 Advanced Writing: Selected contexts  
WRT 333 Scientific and Technical Writing  
Any COM course

#### **A possible course of studies follows:**

First year		Second year	
CSC 110	CSC 211	CSC 212	CSC 301
MTH 141	MTH 215	Gen Ed	Gen Ed
WRT	COM	WRT	Gen Ed



Gen Ed URI 101 15crs	Gen Ed Gen Ed 16crs	Elective Elective 16crs	Elective Elective 16crs
Third year CSC 320 CSC Elective Gen Ed Gen Ed Elective 16crs	CSC 412/Elective Gen Ed Gen Ed Elective Elective 16crs	Fourth year CSC 411/Elective Elective Elective Elective 13crs	CSC 305 Elective Elective Elective 13crs

(CSC Elective = CSC 402, 411, 412, 436, 481)

- a. New courses. None.
- b. Required courses. See above.
- c. d. Course distribution.  
Computer science courses: 36 credits  
General education: 36 credits  
Free electives: 38 - 41 credits
- e. Total credits required for graduation: 121.
- f. Courses delivered by distance learning: N. A.

## 2. Certification/licensing requirements: N. A.

## F. FACULTY AND STAFF

### 1. Faculty: The following URI faculty will staff the proposed B. A. in Computer Science:

- Gérard M. Baudet, Associate Professor; Ph.D., Carnegie-Mellon University, 1978: *design and analysis of VLSI algorithms, computer architecture, parallel algorithms, educational software.*
- Frank M. Carrano, Professor; Ph.D., Syracuse University, 1969: *computer-aided education, numerical analysis.*
- Lisa B. Cingiser DiPippo, Assistant Professor; Ph.D., University of Rhode Island, 1995: *real time systems, database systems.*
- Jean-Yves Hervé, Assistant Professor, Ph.D., University of Maryland, 1993: *computer vision, robotics, computer graphics, multimedia.*
- James G. Kowalski, Associate Professor; Ph.D., University of Notre Dame, 1975: *expert systems, neural networks, genetic algorithms, artificial intelligence, logic.*
- Edmund A. Lamagna, Professor; Ph.D., Brown University, 1975: *symbolic and algebraic computation, design and analysis of algorithms, programming languages, user interfaces.*
- Joan Peckham, Associate Professor; Ph.D., University of Connecticut, 1990: *database systems, software engineering.*
- Bala Ravikumar, Associate Professor; Ph.D., University of Minnesota, 1987: *theory of computation, complexity theory, analysis of algorithms.*
- Victor Fay Wolfe, Associate Professor; Ph.D., University of Pennsylvania, 1991: *real-time systems, distributed systems, operating systems, programming languages.*

All of the individuals listed are full-time and either tenured or, in the case of the Assistant Professors, tenure-track. Typically, department faculty devote approximately 3/4-ths of their assigned teaching to undergraduate courses and 1/4-th to graduate courses.

The department added a new faculty member at the beginning of the 2000 academic year and is now conducting a search for a tenure-track position in computer science with the expectation that the new person will be here for Fall 2001.

A small number of courses each semester are typically covered with adjuncts and per course instructors who supplement the regular faculty.

2. **Staff:** The department currently has 11 state supported graduate assistants who staff laboratory and recitation sections of courses and who grade papers.

The department also has two full-time secretaries and is searching for a full-time Computer Systems Administrator to oversee its extensive computer facilities.

## G. STUDENTS

1. **Potential students and their primary source:** Of the first-year students that the University currently accepts as computer science majors, we estimate that one-third change their majors and one-sixth either transfer to other schools or are dismissed. That is, one-half of the original number continue the B. S. curriculum to completion. Based on a recent survey of our students, we estimate that one-quarter of our present students would pursue a B. A. in computer science instead of a B. S. We expect that the majority of these students would change their major from computer science if the B. A. is not an option. Thus, we expect to retain about 75% of our majors instead of the present 50%.

We also expect to attract students currently in other B. A. programs who want a second major in computer science. We presently encourage double majors and double degrees among our present B. S. students, as computer science is such an applied discipline. Significant interest in computer science as a second major comes from such present majors as art, music, and education. This interest seldom materializes into actual majors in computer science. Combining a B. S. in computer science with a B. A. in another field is a double degree that requires 30 additional credits for graduation. This option is usually not attractive to students in typical B. A. curriculums. On the other hand, a B. A. with a double major in computer science and another field would require a realistic, attractive, and useful set of requirements.

To summarize, we expect that the B. A. curriculum in computer science will help retain our present students, and attract a number of students who would not otherwise attend URI.

2. **Program size.** Based on the previous discussion and current enrollment in computer science, we expect about 35 additional full-time students in the B. A. curriculum per year. Note that we presently have few, if any, part-time undergraduate students. We do not expect the B. A. curriculum to change this fact.
3. **Program admission and retention requirements.** University College students must complete computer science courses through CSC 212 and MTH 141, have a C average in these courses, and a C average overall to transfer to the College of Arts and Sciences as a computer science major. To graduate, students must have a C average in computer science and a C average overall.
4. **Available funds for scholarships and fellowships.** The department annually awards the R. Craig Caldwell Scholarship to the senior with the highest grade-point average. At present, no other scholarship is available exclusively to computer science majors.

## **H. ADMINISTRATION**

- 1. Program administration and the affect on the computer science department.** The requirements for the proposed B. A. degree in Computer Science are essentially a subset of the requirements for the existing B. S. degree. Since the Department already has in place the mechanisms necessary to provide administrative support for the B. S. degree, viz., department chair, an Undergraduate Affairs Committee, and secretarial staff, etc., the present administrative structure will be adequate for the new program. Administrative workloads, of course, will increase as enrollments rise. However, since the additional administrative workload per student is relatively small, the present administrative staff size will be adequate to handle anticipated enrollment increases for at least the near-term (three to five years).
- 2. Person who will have administrative responsibility for the program, and the percent of time spent on the program.** The Department Chair will have overall administrative responsibility for this program. The new B. A. program likely would require no more than one or two hours per week (over and above time already spent on the department's other programs). Thus, it seems reasonable that less than 5% of the chair's time will be spent on this program. The present chair is James G. Kowalski
- 3. Additional annual administrative salaries and related costs.** None expected unless and until enrollments grow significantly.

## **I. INSTRUCTIONAL RESOURCES**

We estimate that the introduction of the new B. A. program will increase the number of undergraduate students in computer science by about 25%. The department added a new faculty member at the beginning of the 2000 academic year and is now conducting a search for a tenure-track position in computer science with the expectation that the new person will be here for Fall 2001. Existing library materials currently used to support our B. S. program will still be adequate to support the additional students enrolled in the B. A. program. The use of our laboratory equipment in our lower level classes, however, will be overextended. In particular we project that 10 additional desktop computers will be necessary to alleviate the load.

## **J. FACILITIES AND CAPITAL EQUIPMENT**

The desktop computers that equip our lab each cost about \$2,000 and have a typical lifetime of 2 years. The 10 desktop computers required to meet the needs of our increased enrollment will therefore amount to an average annual cost of \$10,000. Funds will come from revenues generated by our lab fees.

No extra space will be required with the introduction of the B. A. program. Our current schedule will allow for additional lab sections to be taught in our current facility.

## **K. FINANCIAL CONSIDERATIONS**

See Appendix

## **L. EVALUATION**

Evaluation of the proposed program will be multipart.

1. We will develop surveys to evaluate the B. A. program. In particular, we will measure the success of the program by looking at:
  - The number of students who join the program (The availability of a B. A. program might have the side effect of lowering slightly the enrollment in our B. S. program.)
  - The impact of our B. A. program on other programs on the campus. For example, we will count the number of joint majors and ask other departments how our B. A. students contribute to their programs.
  - How our students do in the market place 2 years after graduation.
2. We also will request an external evaluation at the completion of the first 4 years of the program. The evaluation will be conducted by a committee whose members are from peer universities.
3. In addition, the program will be subject to the periodic internal program review process required by the University.

## APPENDIX

### EXPENSE ESTIMATES

#### Personnel Services

	Year 1	Year 2	Year 3	Year 4
Administrators	0	0	0	0
Faculty	60000	61800	63650	65560
Support staff	0	0	0	0
Others	0	0	0	0
Fringe Benefits 14%	8400	8652	8911	9178
<b>Total Personnel</b>	<b>68400</b>	<b>70452</b>	<b>725617</b>	<b>4738</b>

#### Operating Expenses

Instructional Resources (\$50/student/yr)	400	850	1300	1750
Travel				
In-State	0	0	0	0
Out-of-State	0	0	0	0
Other	0	0	0	0
<b>Total Operating Expenses</b>	<b>400</b>	<b>850</b>	<b>1300</b>	<b>1750</b>

#### Capital

Facilities	0	0	0	0
Equipment	0	5000	7500	10000
Library Holdings	0	0	0	0
Other	0	0	0	0
<b>Total Capital</b>	<b>0</b>	<b>5000</b>	<b>7500</b>	<b>10000</b>

#### Student Assistance

Assistantships	0	0	0	0
Fellowships	0	0	0	0
Stipends/Scholarships	0	0	0	0
<b>Total Student Assistance</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>TOTAL EXPENDITURES</b>	<b>68800</b>	<b>76302</b>	<b>81361</b>	<b>86488</b>

### REVENUE ESTIMATES

#### Tuition

	Year 1	Year 2	Year 3	Year 4
First Year Students				
In-State (4 @ \$1700 + \$50 increase/yr)	6800	7000	7200	7400
Out-of-State (4 @ \$5800 + \$100 increase/yr)	23200	23600	24000	24400
Second Year Students				
In-State (5 @ \$1750 + \$50 increase/yr)	0	8750	9000	9250
Out-of-State (4 @ \$5900 + \$100 increase/yr)	0	23600	23600	24000
Third Year Students				
In-State (4 @ \$1800 + \$50 increase/yr)	0	0	7200	7400
Out-of-State (5 @ \$6000 + \$100 increase/yr)	0	0	30000	30500
Fourth Year Students				
In-State (5 @ \$1850)	0	0	0	9250
Out-of-State (4 @ \$6100)	0	0	0	24400
<b>Total Tuition</b>	<b>30000</b>	<b>62950</b>	<b>101000</b>	<b>136600</b>

#### Mandatory Fees (@ \$800/student/yr)

Mandatory Fees (@ \$800/student/yr)	6400	13600	20800	28000
Grants	0	0	0	0
Contracts	0	0	0	0
Other Revenues	0	0	0	0
<b>TOTAL REVENUES</b>	<b>36400</b>	<b>76550</b>	<b>121800</b>	<b>164600</b>

### BUDGET SUMMARY

	Year 1	Year 2	Year 3	Year 4
TOTAL REVENUES	36400	76550	121800	164600
TOTAL EXPENDITURES	68800	76302	81361	86488
EXCESS/DEFICIENCY	(32400)	248	40439	78112